

Curriculum Vitae : Somporn CHUAI-AREE

Name Somporn Chuai-Aree

Date of Birth September 30, 1974

Place of Birth Nakhon Si Thammarat, Thailand

Nationality Thai

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Marital Status Single

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Educational Background

Year	Degree	Institute	GPAX*
March 2001-present	Ph.D. Student (Applied Mathematics)	University of Heidelberg, Heidelberg, Germany	-
June 1998 -Oct 2000	M.Sc. (Computational Science)	Chulalongkorn University, Bangkok, Thailand	3.89
June 1993 - May 1997	B.Sc. 2 nd Class Honors (Applied Mathematics)	Prince of Songkla University, Pattani, Thailand	3.45
1990 - 1993	Senior High School (Maths and Science, emphasis on Agriculture)	Thung Song School, Nakhon Si Thammarat, Thailand	2.93
1987 - 1990	Junior High School (Maths and Science, emphasis on Agriculture)	Kuankoei Sutthivittaya School, Nakhon Si Thammarat, Thailand	2.92
1982 - 1987	Primary School	Wad Kuankoei School, Nakhon Si Thammarat, Thailand	-

*GPAX : Cumulative grade point average (2: C, 3: B, 4: A = very good)

Research Projects

2008-Present	Research in following fields : <ol style="list-style-type: none">1. Plant growth modeling2. Weather and ocean simulation3. Water flooding simulation4. Coastal erosion5. Modeling, simulation and visualization
2001-2008	Modeling, Simulation and Visualization of Plants Growth : Prof. Jäger's Group "Applied Analysis" at IWR (Interdisciplinary Center for Scientific Computing), Ruprecht-Karls-Universität Heidelberg, Heidelberg, Germany Advisors: Prof. Dr. Dr. h.c. mult. Willi Jäger Prof. Dr. Dr. h.c. Hans Georg Bock
1999-2000	An Algorithm for Simulation and Visualization of Plant Shoots Growth (Very good in Master Thesis) Advisors: Assoc. Prof. Suchada Siripant Prof. Dr. Chidchanok Lursinsap
1996-1997	Database Management System for Student Affair of Faculty of Science and Technology, Prince of Songkla University, Pattani Campus (Very good in Senior Project) Advisors: Assist. Prof. Sunan Thongsrinuch Dr. Rattikarn Saelim

Working experiences

September 2008 - Present	Lecturer at PSU, Pattani campus Courses : <ol style="list-style-type: none">1. Differential Equations2. Discrete Mathematics3. Mathematics I4. Individual Projects5. Seminar in Mathematics
May 1997 – March 2001	Lecturer in Introduction to Computer, Introduction to Computer Programming, Operating System, Computer System, Information Technology and Mathematical Modeling for undergraduate students, Department of Mathematics and Computer Science, Faculty of Science and Technology, Prince of Songkla University, Thailand
*June 1998 – Oct 2000	Leave for M.Sc. (Computational Science), Chulalongkorn University, Bangkok, Thailand
*March 2001 - 2008	Leave for Ph.D. (Applied Mathematics), University of Heidelberg, Germany

Scholarships and Awards

2001- 2007	Ph.D. Scholarship from the Royal Thai Government, Thailand
2001	TAB Foundation Awards for Maximum GPAX (3.89) in M.Sc. Computational Science Major
1999-2000	M.Sc. Scholarship from the Royal Thai Government, Thailand
1998-1999	TAB Foundation Scholarship, Chulalongkorn University, Bangkok, Thailand
1994-1996	B.Sc. Scholarship from the Royal Thai Government, Thailand

Research Interests

Simulation and Visualization of Plant Growth, Lindenmayer systems (L-systems) and Inverse Problem of L-systems, Plant Model, Numerical Analysis, Image Processing, Computational Biology, Parallel Processing, Simulation and Optimization, Computational Science, 3D Visualization Programming, Artificial Neural Network (ANN), Fuzzy Logic, 3D Segmentation, Tsunami Problem, Ocean Wave Modeling, Weather Forecast Visualization, Coastal Erosion, Longshore Current.

Activities

2002 - Present	As a committee of Borijak Project supporting the scholarship for junior high school students in North-East Thailand.
2003	As a committee of 2 nd Thai Student Academic Conference (ThaiSAC2003), Aachen, Germany.
2002	As a committee of 1 st Thai Student Academic Conference (ThaiSAC2002), Stuttgart, Germany.
1995-1996	Student Representative of Student Union, Prince of Songkla University, Pattani Campus, Thailand.
1994-1995	Student Representative of Faculty of Science and Technology, Prince of Songkla University, Pattani Campus, Thailand.

Publications of S. Chuai-Aree *et al.*

Research Proceedings / Conferences:

1. W. Kanbua , S. Chuai-Aree : The Simulation of Wave model Under North-East Monsoon Along Coastline of Thailand, Japan - Thailand Estuary Workshop 2008 , Venue: Thai Meteorological Department , Bangkok, Thailand , Period: August 19 - 20, 2008
2. W. Kanbua , S. Chuai-Aree : Ocean Wave Simulation Under North-East Monsoon Effect in the Gulf of Thailand, 13th National Convention on Civil Engineering , Venue: Pattaya, Chon Buri, Thailand , Period: May 14 - 16, 2008

3. W. Kanbua , S. Chuai-Aree : Tsunami Propagation Prediction by SiTProS Model, INTERNATIONAL SYMPOSIUM ON THE RESTORATION PROGRAM FROM GIANT EARTHQUAKES AND TSUNAMIS , Venue: Royal Phuket City Hotel, Phuket, Thailand , Period: January 22-24, 2008
4. S. Chuai-Aree, W. Kanbua : SiTProS: Fast and Real-Time Simulation of Tsunami Propagation, AMS2007: Asia Modelling Symposium international conference, Phuket, Thailand, March 27-30, 2007.
5. W. Kanbua, S. Chuai-Aree : Understanding the Simple Model of Tsunami Propagation by SiTProS Model, The 11th Annual National Symposium on Computational Science and Engineering (ANSCSE11), Phuket, Thailand, March 28-30, 2007.
6. S. Chuai-Aree, S. Siripant, W. Jäger, H. G. Bock : PlantVR: Software for Simulation and Visualization of Plant Growth Model , PMA06: The Second International Symposium on Plant growth Modeling, Simulation, Visualization and Applications, Beijing (CHINA PR), November 13-17, 2006.
7. S. Chuai-Aree, S. Siripant, W. Jäger, H. G. Bock : An Algorithm for Simulation of Leaf Vein, Shoot and Root Growth Based on Their Environmental Factors , PMA06: The Second International Symposium on Plant growth Modeling, Simulation, Visualization and Applications, Beijing (CHINA PR), November 13-17, 2006.
8. S. Siripant, S. Chuai-Aree: Simulation and Visualization of Leaf Growth , Proc. of Intern. Conf. on High Performance Scientific Computing (HPSCHanoi 2006), March 6-10, Hanoi, Vietnam, 2006.
9. H. G. Bock, S. Chuai-Aree, W. Jäger, W. Kanbua, S. Krömker, S. Siripant: 3D Cloud and Storm Reconstruction from Satellite Image , Proc. of Intern. Conf. on High Performance Scientific Computing (HPSCHanoi 2006), March 6-10, Hanoi, Vietnam, 2006.
10. H. G. Bock, S. Chuai-Aree, W. Jäger, S. Siripant: Inverse Problem of Lindenmayer Systems on Branching Structures , Proc. of Intern. Conf. on High Performance Scientific Computing (HPSCHanoi 2006), March 6-10, Hanoi, Vietnam, 2006.
11. S. Chuai-Aree, W. Jäger, H. G. Bock, S. Siripant: Reconstruction of Branching Structures Using Region and Volume Growing Method International Conference in Mathematics and Applications (ICMA-MU 2005) , Bangkok, Thailand, December 15-17, 2005.
12. W. Kanbua, S. Chuai-Aree: Virtual Wave : an Algorithm for Visualization of Ocean Wave Forecast in the Gulf of Thailand. The 2nd International Symposium on Mathematical, Statistical and Computer Sciences , Bangkok, Thailand, February 19-20, 2005.
13. S. Chuai-Aree, W. Jäger, H. G. Bock, S. Siripant: Modeling, Simulation and Visualization of Plant Root Growth and Diffusion Processes in Soil Volume. Proc. of 4TH International Workshop on Functional-Structural Plant Models , Montpellier, France, June 7-11, 2004, pp. 289-293.
14. S. Chuai-Aree, W. Jäger, H. G. Bock, S. Siripant: PlantVR: Software for simulation and visualization of a model for plant growth. Proc. of 4TH International Workshop on Functional-Structural Plant Models , Montpellier, France, June 7-11, 2004, pp. 418.

15. S. Chuai-Aree, W. Jäger, H. G. Bock, S. Siripant, C. Lursinsap: PlantVR : An Algorithm for Generating Plant Shoot and Root Growth Using Applied Lindenmayer Systems. In B.Hu and M. Jaeger (eds.): Proc. of 2003' Intern. Symposium on Plant growth Modeling, simulation, visualization and their Applications , Tsinghua University Press - Springer Verlag, October 13-16, Beijing, China, pp. 55-68, 2003.
16. S. Chuai-Aree, W. Jäger, H. G. Bock, S. Siripant: Simulation and Visualization of Plant Growth using Lindenmayer Systems, Proc. of Intern. Conf. on High Performance Scientific Computing (HPSC), March 10-14, Hanoi, Vietnam, 2003.
17. S. Chuai-Aree, W. Jäger, H. G. Bock, S. Siripant: Smooth Animation for Plant Growth Using Time Embedded Component and Growth Function. In N. V. Sanh, Y. Lenbury, Y. H. Wu and B. Wiwatanapataphee (eds.): Proc. of Intern. Conf. on Computational Mathematics and Modeling, May 22-24, Thailand, in East-West Journal of Mathematics, special volume, pp. 285-295, 2002.
18. Chuai-Aree, S., Siripant, S. and Lursinsap, C., "Animating plant growth in L-system by parametric functional symbols", Proc. of Intern. Conf. on Intelligent Technology 2000, December 13-15, Assumption University Bangkok, Thailand, pp. 135-143, 2000.
19. Chuai-Aree, S., Lursinsap, C., Sophatsathit, P. and Siripant, S., "Fuzzy C-Mean: A statistical feature classification of text and image segmentation method", Proc. of Intern. Conf. on Intelligent Technology 2000, December 13-15, Assumption University Bangkok, Thailand, pp. 279-284, 2000.

Research Journals:

1. S. Chuai-Aree, W. Jäger, H. G. Bock, S. Siripant: Reconstruction of Branching Structures Using Region and Volume Growing Method, International Conference in Mathematics and Applications (ICMA-MU 2005), Bangkok, Thailand, December 15-17, 2005.
2. Kanbua, W. and Chuai-Aree, S. : Virtual Wave : An Algorithm for Visualization of Ocean Wave Forecast in the Gulf of Thailand, KMITL Science Journal Vol.5, No.1 Feb.2005, 140-150.
3. S. Chuai-Aree, W. Jäger, H. G. Bock, S. Siripant: Simulation and Visualization of Plant Growth Using Lindenmayer Systems. In H. G. Bock, E. Kostina, H. X. Phu and R. Rannacher (eds.): Modeling, Simulation and Optimization of Complex Processes, Springer-Verlag, pp. 115-126, 2005.
4. Rodkeaw, Y., Chuai-Aree, S., Lursinsap, C., Sophatsathit, P. and Siripant, S. and Chongstitvatana, P.: Animating Plant Growth in L-System by Parametric Functional Symbols, International Journal of Intelligent Systems, Vol. 19(1-2), (2004), pp. 9-23.
5. S. Chuai-Aree, W. Jäger, H. G. Bock, S. Siripant: Smooth Animation for Plant Growth Using Time Embedded Component and Growth Function, East-West Journal of Mathematics, Special Volume, pp. 285-295, 2002.
6. Chuai-Aree, S., Lursinsap, C., Sophatsathit, P. and Siripant, S., Fuzzy C-Mean: A statistical feature classification of text and image segmentation method, International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, Vol. 9(6), (2001), pp. 661-671, World Scientific Publishing Company.

Magazines and Newspapers:

1. Stuttgart Newspaper, February 2, 2007 (in German)
(<http://www.schuai.net/VirtualCloud3D/Kyrill/STN/Kyrill.pdf>)
2. Uni-Heidelberg Pressemitteilungen "Wolkenwirbel mit Bergen und Schluchten", January 31, 2007 (in German)
(<http://www.uni-heidelberg.de/presse/news07/2701kyri.html>)
3. Tsunami News , 100 watts, 2005 (in Thai) (<http://www.iwr.uni-heidelberg.de/groups/ngg/People/schuai/Somporn.NET/Thaiarticles/WarningTsunami.pdf>)

Blogs / Articles (in Thai)

1. บล็อกมิสเตอร์ช่วย <http://gotoknow.org/blog/mrschuai>
2. บล็อกลานคณิตศาสตร์ <http://gotoknow.org/blog/lan-maths>
3. บล็อกลานคำใต้ : แผลงใต้วันละ(หลาย)คำ <http://gotoknow.org/blog/hlaengtai>
4. บล็อกลานคอมมูคดา <http://gotoknow.org/blog/combudda>
5. หน้ารวมบล็อก <http://gotoknow.org/profile/mrschuai>

Languages Thai (Native Language), English and basic of German.

I would like to certify that everything I state above is true.

Somporn Chuai-Aree
March 16, 2009